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PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C. 20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year)

15 March 2000 (15.03.00)

International application No.

PCT/GB99/01565

Applicant's or agent's file reference

H9502WO/DJL

International filing date (day/month/year)

17 May 1999 (17.05.99)

Priority date (day/month/year)

24 July 1998 (24.07.98)

Applicant

DIXON, Thomas, Gildroy, Shaw

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

04 February 2000 (04.02.00)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Pascal Piriou

Telephone No.: (41-22) 338.83.38

INTERNATIONAL SEARCH REPORT

Ir. .ational Application No

PCT/GB 99/01565

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F27D1/14 F27D1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F27D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 695 923 A (FRATELLI FICOLA DI SCIPIONE SRL) 7 February 1996 (1996-02-07)	1,18,20, 21,33, 35-37
A	claims; figure 1 page 2, right-hand column, line 52 - page 3, line 45	5,8-10, 14
Y	US 5 438 813 A (J.A.WADE) 8 August 1995 (1995-08-08)	1,18,20, 21,33, 35-37
A	claims; figures claim 4; figures 3-5	2,3,6, 11,13, 15,19, 21-23
	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

8 July 1999

Date of mailing of the international search report

16/07/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040. Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Coulomb, J

INTERNATIONAL SEARCH REPORT

I. International Application No
PCT/GB 99/01565

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 1 375 770 A (L.WILLEMIN) 3 February 1965 (1965-02-03) claims; figures ----	9,16,17
A	GB 2 149 771 A (J.R.MORRIS) 19 June 1985 (1985-06-19) page 4, line 51 - line 57; claims; figures ----	9,16,17
A	GB 2 006 413 A (MCKECHNIE REF) 2 May 1979 (1979-05-02) claims; figures ----	1,25,26
A	US 4 103 469 A (C.O.BYRD) 1 August 1978 (1978-08-01) claims 1,2; figures ----	1
A	DE 41 19 990 A (FORSHUNGSINSTITUT FÜR ANORGANISCHE WERKSTOFFE-GLAS/KERAMIK-GMBHJ) 24 December 1992 (1992-12-24) column 1, line 60 - line 65; figures ----	1
A	US 5 759 663 A (M.A.HOUNSEL) 2 June 1998 (1998-06-02) claims; figure 3 ----	1
A	AU 481 101 B (CARBORUNFUM PROP LD) 25 September 1975 (1975-09-25) claims; figure 3 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/01565

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 695923	A	07-02-1996	IT 1275119 B	30-07-1997
US 5438813	A	08-08-1995	NONE	
FR 1375770	A	03-02-1965	NONE	
GB 2149771	A	19-06-1985	US 4568595 A	04-02-1986
			DE 3441622 A	05-06-1985
			JP 60176752 A	10-09-1985
			JP 1839958 C	25-04-1994
			JP 5049633 B	26-07-1993
			JP 60235778 A	22-11-1985
GB 2006413	A	02-05-1979	BE 871478 A	15-02-1979
			FR 2406779 A	18-05-1979
US 4103469	A	01-08-1978	US 4001996 A	11-01-1977
			DE 2635623 A	24-02-1977
			FR 2321101 A	11-03-1977
			GB 1562203 A	05-03-1980
			JP 1130548 C	17-01-1983
			JP 52020437 A	16-02-1977
			JP 57020553 B	30-04-1982
			US 4055926 A	01-11-1977
			US 4123886 A	07-11-1978
DE 4119990	A	24-12-1992	DE 9116965 U	02-02-1995
US 5759663	A	02-06-1998	NONE	
AU 481101	B	25-09-1975	NONE	

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference H9502W0/DJL	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/GB 99/ 01565	International filing date (day/month/year) 17/05/1999	(Earliest) Priority Date (day/month/year) 24/07/1998
Applicant T.F.W. DIXON & SON LIMITED et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/01565

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F27D1/14 F27D1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F27D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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A	claims; figure 1 page 2, right-hand column, line 52 - page 3, line 45	5, 8-10, 14
Y	US 5 438 813 A (J.A.WADE) 8 August 1995 (1995-08-08)	1, 18, 20, 21, 33, 35-37
A	claims; figures claim 4; figures 3-5	2, 3, 6, 11, 13, 15, 19, 21-23
	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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"&" document member of the same patent family

Date of the actual completion of the international search

8 July 1999

Date of mailing of the international search report

16/07/1999

Name and mailing address of the ISA

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NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Coulomb, J

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/GB 99/01565

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	AU 481 101 B (CARBORUNFUM PROP LD) 25 September 1975 (1975-09-25) claims; figure 3 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/01565

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 695923	A	07-02-1996	IT 1275119 B	30-07-1997
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US 5759663	A	02-06-1998	NONE	
AU 481101	B	25-09-1975	NONE	

INTERNATIONAL SEARCH REPORT

Int. National Application No

PCT/GB 99/01565

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F27D1/14 F27D1/00

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Y	US 5 438 813 A (J.A.WADE) 8 August 1995 (1995-08-08)	1,18,20, 21,33, 35-37
A	claims; figures claim 4; figures 3-5	2,3,6, 11,13, 15,19, 21-23
	--- -/-	

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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

8 July 1999

Date of mailing of the international search report

16/07/1999

Name and mailing address of the ISA

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NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, T.x. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Coulomb, J

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 99/01565

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	US 5 759 663 A (M.A.HOUNSEL) 2 June 1998 (1998-06-02) claims; figure 3 ---	1
A	AU 481 101 B (CARBORUNFUM PROP LD) 25 September 1975 (1975-09-25) claims; figure 3 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/01565

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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US 5438813	A	08-08-1995	NONE	
FR 1375770	A	03-02-1965	NONE	
GB 2149771	A	19-06-1985	US 4568595 A	04-02-1986
			DE 3441622 A	05-06-1985
			JP 60176752 A	10-09-1985
			JP 1839958 C	25-04-1994
			JP 5049633 B	26-07-1993
			JP 60235778 A	22-11-1985
GB 2006413	A	02-05-1979	BE 871478 A	15-02-1979
			FR 2406779 A	18-05-1979
US 4103469	A	01-08-1978	US 4001996 A	11-01-1977
			DE 2635623 A	24-02-1977
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			GB 1562203 A	05-03-1980
			JP 1130548 C	17-01-1983
			JP 52020437 A	16-02-1977
			JP 57020553 B	30-04-1982
			US 4055926 A	01-11-1977
			US 4123886 A	07-11-1978
DE 4119990	A	24-12-1992	DE 9116965 U	02-02-1995
US 5759663	A	02-06-1998	NONE	
AU 481101	B	25-09-1975	NONE	

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference H9502WO/DJL	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB99/01565	International filing date (day/month/year) 17/05/1999	Priority date (day/month/year) 24/07/1998
International Patent Classification (IPC) or national classification and IPC F27D1/14		
Applicant T.F.W. DIXON & SON LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 7 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 04/02/2000	Date of completion of this report 10.11.2000
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Cornel, E. Telephone No. +49 89 2399 2938 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB99/01565

I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).)*:

Description, pages:

1-20 as originally filed

Claims, No.:

1-37 as originally filed

Drawings, sheets:

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB99/01565

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 2-17,20,22-30,33,34,36,37.

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1,18,19,21,31,32,35 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet

- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

- ☐ no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination report cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Yes: Claims

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB99/01565

	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1, 18, 19, 21, 31, 32, 35
Industrial applicability (IA)	Yes:	Claims	1-37
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB99/01565-

- 1 The application does not meet the requirements of Article 6 PCT, because the claims are not clear:
 - 1.1 The various definitions of the invention given in independent claims 1, 18 and 19 of overlapping scope referring to a lining and in independent method claims 21, 31, 32 and 35 of overlapping scope are such that the claims as a whole are not clear and concise, so that Article 6 PCT is not met. For example according to independent claim 18 the securing means should comprise a headed fastener, which feature does not appear in any other independent claim for a lining. The independent claim 19 however contains features contrary to the other independent claims 1 and 18, namely securing means which is attached to a shank. According to independent method claim 31 the method should comprise a headed fastener, which feature does not appear in any other independent method claim. According to claim 32 a protective element is retained between securing means, whereas according to the subject matter of independent claim 21 the element is secured to the face of insulating material and claim 35 differs from the other claims in improving the thermal resistance of an existing furnace. These explained differences are only examples and do not contain all differences existing in the independent claims. Therefore it is impossible to define the matter for which protection is sought and consequently the claims should be recast to include only the minimum necessary number of independent claims in any one category, with dependent claims as appropriate.
 - 1.2 In the present case it is considered appropriate to use only one independent claim in any category.
 - 1.3 If the applicant is going to draft amended claims differing substantially from the suggestion above, he should have to put forward reasons why he feels it necessary to have more than one independent claim in any category and why these independent claims relate to one definition of the invention or to a group of inventions so linked as to form general inventive concept.
 - 1.4 It also is impossible at present to carry out a meaningful examination for the dependant claims, because it is not clear to which invention they refer.

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- 2.1 The following document/s (D) is/are referred to in this examination report; the numbering will be adhered to in the rest of the examination report:
- D1: EP-A-0 695 923 (FRATELLI FICOLA DI SCIPIONE SRL) 7 February 1996 (1996-02-07)
D2: US-A-5 438 813 (J.A.WADE) 8 August 1995 (1995-08-08)
- 2.2 It seems that the subject matter of present independent claims does not meet the requirements of Rule 33.1 a), b), c) PCT because the subject matter of independent claims does not involve an inventive step in view of an obvious combination of prior art documents D1 and D2.
- 3 The independent claims should be filed taking account of Rule 6.3 b) i), ii) PCT.
- 3.1 The description must be brought into conformity with the new claims filed; care should be taken during revision, especially of the introductory portion including any statements of problem or advantage, not to add subject-matter which extends beyond the content of the application as originally filed.
- 3.2 To meet the requirements of Rule 5.1 a) i) - vi) PCT, the documents D1 and D2 should be identified in the description and the relevant background art disclosed therein should be briefly discussed.
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which articles are placed for heat treatment.

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference H9502WO/DJL	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/GB99/01565	International filing date (day/month/year) 17/05/1999	Priority date (day/month/year) 24/07/1998	
International Patent Classification (IPC) or national classification and IPC F27D1/14			
Applicant T.F.W. DIXON & SON LIMITED et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 7 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 04/02/2000	Date of completion of this report 10.11.2000
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Comel, E Telephone No. +49 89 2399 2938 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB99/01565

I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).)*:

Description, pages:

1-20 as originally filed

Claims, No.:

1-37 as originally filed

Drawings, sheets:

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY
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☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 2-17,20,22-30,33,34,36,37.

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1,18,19,21,31,32,35 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for the said claims Nos. .
2. A meaningful international preliminary examination report cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

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	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1, 18, 19, 21, 31, 32, 35
Industrial applicability (IA)	Yes:	Claims	1-37
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB99/01565

- 1 The application does not meet the requirements of Article 6 PCT, because the claims are not clear:
 - 1.1 The various definitions of the invention given in independent claims 1, 18 and 19 of overlapping scope referring to a lining and in independent method claims 21, 31, 32 and 35 of overlapping scope are such that the claims as a whole are not clear and concise, so that Article 6 PCT is not met. For example according to independent claim 18 the securing means should comprise a headed fastener, which feature does not appear in any other independent claim for a lining. The independent claim 19 however contains features contrary to the other independent claims 1 and 18, namely securing means which is attached to a shank. According to independent method claim 31 the method should comprise a headed fastener, which feature does not appear in any other independent method claim. According to claim 32 a protective element is retained between securing means, whereas according to the subject matter of independent claim 21 the element is secured to the face of insulating material and claim 35 differs from the other claims in improving the thermal resistance of an existing furnace. These explained differences are only examples and do not contain all differences existing in the independent claims. Therefore it is impossible to define the matter for which protection is sought and consequently the claims should be recast to include only the minimum necessary number of independent claims in any one category, with dependent claims as appropriate.
 - 1.2 In the present case it is considered appropriate to use only one independent claim in any category.
 - 1.3 If the applicant is going to draft amended claims differing substantially from the suggestion above, he should have to put forward reasons why he feels it necessary to have more than one independent claim in any category and why these independent claims relate to one definition of the invention or to a group of inventions so linked as to form general inventive concept.
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International application No. PCT/GB99/01565

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which articles are placed for heat treatment.

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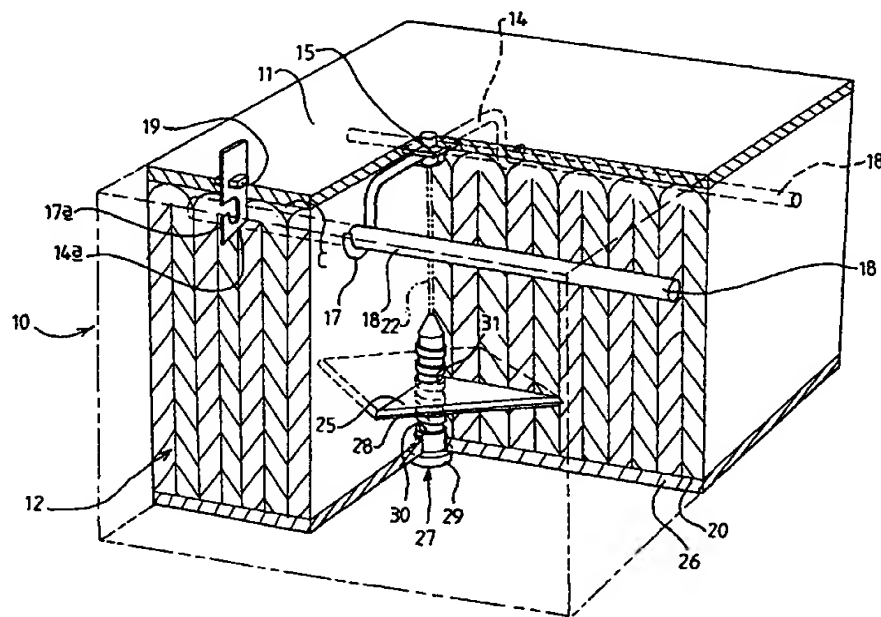
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(81) Designated States: GB, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

With international search report.

(54) Title: FURNACE LINING



(57) Abstract

A lining (10) for a furnace the lining (10) having insulating material (12) attached to an inside wall (11) of the furnace, the insulating material (12) in use having a hot face (20) which faces inwardly of the furnace, and a cold face at or adjacent the furnace wall (11) characterised in that a protective element (26) is provided at least partially to cover the hot face (20), and/or the cold (C) face, the protective element (26) being secured relative to the face by a securing means (27, 27b), which co-operates with a member (25; 25a; 25b; 25c) which is embedded in the insulating material (12).

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